

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

SHOPIFY INC. AND SHOPIFY (USA)
INC.,

Plaintiffs and Counterclaim Defendants,

v.

EXPRESS MOBILE, INC.,

Defendant and Counterclaim Plaintiff.

Civil Action No. 19-439-RGA

MEMORANDUM OPINION


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ANDREWS, U.S. DISTRICT JUDGE:

Before me is Shopify's Motion for Judgment as a Matter of Law and/or for a New Trial.¹ (D.I. 436). I have reviewed the parties' briefing. (D.I. 437, 443, 446). I heard oral argument on October 11, 2023.² For the following reasons, Shopify's motion is GRANTED.

I. BACKGROUND

After a five-day trial, the jury found that Shopify infringed all eight asserted claims: claims 1, 12, and 22 of U.S. Patent No. 9,063,755 ("755 patent"), claims 1 and 13 of U.S. Patent No. 9,471,287 ("287 patent"), and claims 1, 17, and 19 of U.S. Patent No. 9,928,044 ("044 patent"). (D.I. 418). The patents include both method and system claims. Claim 1 of each patent and claim 13 of the '287 patent are system claims, and claims 12 and 22 of the '755 patent and claims 17 and 19 of the '044 patent are method claims. JTX-0001, JTX-0003, JTX-0004. The jury awarded Express Mobile \$40 million in damages. (D.I. 420). Shopify seeks JMOL of non-infringement and no damages, or in the alternative, a new trial. (D.I. 437).³

II. LEGAL STANDARD

A. Judgment as a Matter of Law

Judgment as a matter of law is appropriate if "the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for [a] party" on an issue. Fed. R. Civ. P. 50(a)(1). "Entry of judgment as a matter of law is a 'sparingly' invoked remedy, 'granted only if,

¹ Two Shopify entities filed this declaratory judgment action. At trial they were treated as one entity, and I do so here as well.

² Citations to the transcript of the argument (D.I. 461) are in the format "Hearing Tr. []."

³ On March 1, 2023, the PTAB found claims 1, 2, 5-7, and 11 of the '755 patent and 1, 2, 5-7, 11, and 12 of the '287 patent unpatentable based on obviousness. IPR2021-01455; IPR2021-01456. On March 14, 2023, the PTAB found claims 1, 2, 5-7, 11, and 12 of the '044 patent unpatentable based on obviousness. IPR2021-01457. The PTAB litigation is pending. I do not address the PTAB litigation as the issue of invalidity is not before me.

viewing the evidence in the light most favorable to the nonmovant and giving it the advantage of every fair and reasonable inference, there is insufficient evidence from which a jury reasonably could find liability.” *Marra v. Phila. Hous. Auth.*, 497 F.3d 286, 300 (3d Cir. 2007) (citation omitted).

“To prevail on a renewed motion for JMOL following a jury trial, a party must show that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusion(s) implied by the jury’s verdict cannot in law be supported by those findings.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998) (cleaned up).

“‘Substantial’ evidence is such relevant evidence from the record taken as a whole as might be accepted by a reasonable mind as adequate to support the finding under review.” *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984).

In assessing the sufficiency of the evidence, the Court must give the non-moving party, “as [the] verdict winner, the benefit of all logical inferences that could be drawn from the evidence presented, resolve all conflicts in the evidence in his favor and, in general, view the record in the light most favorable to him.” *Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1348 (3d Cir. 1991). The Court may “not determine the credibility of the witnesses [nor] substitute its choice for that of the jury between conflicting elements in the evidence.” *Perkin-Elmer*, 732 F.2d at 893. Rather, the Court must determine whether the evidence supports the jury’s verdict. *See Dawn Equip. Co. v. Ky. Farms Inc.*, 140 F.3d 1009, 1014 (Fed. Cir. 1998); 9B Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 2524 (3d ed. 2008) (“The question is not whether there is literally no evidence supporting the party against whom the motion is directed but whether there is evidence upon which the jury might reasonably find a verdict for that party.”).

B. New Trial

Federal Rule of Civil Procedure 59(a)(1)(A) provides, “The court may, on motion, grant a new trial on all or some of the issues—and to any party— . . . after a jury trial, for any reason for which a new trial has heretofore been granted in an action at law in federal court” The decision to grant or deny a new trial is committed to the sound discretion of the district court. *See Allied Chem. Corp. v. Daiflon, Inc.*, 449 U.S. 33, 36 (1980); *Olefins Trading, Inc. v. Han Yang Chem. Corp.*, 9 F.3d 282, 289 (3d Cir. 1993) (reviewing district court’s grant or denial of new trial motion under the “abuse of discretion” standard). Although the standard for granting a new trial is less rigorous than the standard for granting judgment as a matter of law—in that the Court need not view the evidence in the light most favorable to the verdict winner—a new trial should only be granted where “a miscarriage of justice would result if the verdict were to stand,” the verdict “cries out to be overturned,” or where the verdict “shocks [the] conscience.” *Williamson*, 926 F.2d at 1352–53. “Where a trial is long and complicated and deals with a subject matter not lying within the ordinary knowledge of jurors a verdict should be scrutinized more closely by the trial judge than is necessary where the litigation deals with material which is familiar and simple, the evidence relating to ordinary commercial practices.” *Lind v. Schenley Indus., Inc.*, 278 F.2d 79, 90–91 (3d Cir. 1960).⁴

If the motion for judgment as a matter of law is granted, then the court must rule in the alternative on the motion for a new trial. Federal Rule of Civil Procedure 50(c)(1) provides:

If the court grants a renewed motion for judgment as a matter of law, it must also conditionally rule on any motion for a new trial by determining whether a new trial should be granted if the judgment is later vacated or reversed. The court must state the grounds for conditionally granting or denying the motion for a new trial.

⁴ The Court gave as an example, “requiring the jury to pass upon the nature of an alleged newly discovered organic compound in an infringement action.” 278 F.2d at 91.

Fed. R. Civ. P. 50(c)(1), *see Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1352 (3d Cir. 1991).

III. DISCUSSION

A. Non-Infringement

Shopify makes five main non-infringement arguments in support of its JMOL motion. Shopify did not raise all of these before the jury. For some of them, Shopify did not cross-examine Express Mobile's expert about them, did not put on testimony through its own expert about them, and did not argue them to the jury. (*See* D.I. 458). Shopify did, however, raise them in its JMOL motion at trial.⁵

Most of Shopify's arguments apply to all asserted claims. In order to give some context to the arguments, I briefly explain the technology at issue and set forth one of the asserted claims—claim 1 of the '287 patent:

1. A system for generating code to provide content on a display of a device, said system comprising:
computer memory storing a registry of:
 - a) *symbolic names required for evoking one or more web components* each related to a set of inputs and outputs of a web service obtainable over a network, where the symbolic names are character strings that do not contain either a persistent address or pointer to an output value accessible to the web service, *where each symbolic name has an associated data format class type* corresponding to a subclass of User Interface (UI) objects that support the data format type of the symbolic name, and has a preferred UI object, and
 - b) *an address of the web service;**an authoring tool configured to:*
define a (UI) object for presentation on the display,
where said defined UI object corresponds to a web component included in said registry selected from a group consisting of an input of the web service and an output of the web service, where each defined UI object is either: 1) selected by a user of the authoring tool; *or 2) automatically selected by the*

⁵ I think it reflects badly on the jury system when a party is permitted to present a case to a jury, lose the case, and then seek to reverse the jury's verdict based on a variety of factual issues that it intentionally did not ask the jury to decide.

system as the preferred UI object corresponding to the symbolic name of the web component selected by the user of the authoring tool,
 access said computer memory to select the symbolic name corresponding to the web component of the ***defined UI object***,
 associate the selected symbolic name with the ***defined UI object***, where the selected symbolic name is only available to UI objects that support the defined data format associated with that symbolic name, and
 produce an Application including the selected Symbolic name of the ***defined UI object***, ***where said Application is a device-independent code; and***
a Player, where said Player is a device-dependent code, wherein, when the Application and Player are provided to the device and executed on the device, and when the user of the device provides one or more input values associated with an input symbolic name to ***an input of the defined UI object***,
 1) the device provides the user provided one or more input values and corresponding input symbolic name to the web service,
 2) the web service utilizes the input symbolic name and the user provided one or more input values for generating one or more output values having an associated output symbolic name,
 3) said Player receives the output symbolic name and corresponding one or more output values and ***provides instructions for the display of the device to present an output value in the defined UI object***.

JTX-0001 at claim 1 (relevant terms bolded and italicized).

The asserted claims relate to Shopify's technology that allows merchants to build their own online websites. (Tr. 462:17-20).⁶ Part of the technology is a tool called the Theme Editor, which allows merchants to add different functionalities to their websites. (Tr. 463:20-25). For example, merchants can embed YouTube videos into their websites, or add a quantity textbox for customers to select how many products they want to add to their virtual shopping cart. (Tr. 307:5-308:7). The parties refer to these functionalities as YouTube and add-to-cart, respectively. Express Mobile pointed to these two functionalities of Shopify's system to prove infringement. Most of Shopify's arguments on JMOL discuss these two functionalities.

1. UI Objects

⁶ The trial transcript appears on the docket at D.I. 431-D.I. 435. The transcript is consecutively paginated. I refer to it in this opinion as "Tr. []."

Shopify argues the asserted claims are not infringed because there is insufficient evidence to show the accused add-to-cart and YouTube functionalities have a singular UI object that both receives input values and displays output values. (D.I. 437 at 12). Shopify asserts, and Express Mobile does not dispute, that all asserted claims require that the “defined UI object” must both receive input and display output. (*Id.*; D.I. 443 at 10-13; Hearing Tr. 39:9-13, 47:18-48:2, 49:10-12; JTX-0001 at claims 1, 12, 22; JTX-0002 at claims 1, 13; JTX-0003 at claims 1, 17, 19 (via claim 15)). At the core of the parties’ disagreement is whether a “defined UI object” can include multiple UI objects.⁷ (D.I. 437 at 12, D.I. 446 at 10).

Shopify argues that for both the accused add-to-cart and YouTube functionalities, there are two defined UI objects, one that receives an input value and a different one that displays an output value. (D.I. 437 at 12). Thus, there is no one UI object that both receives inputs and displays outputs as the claims require. For add-to-cart, neither party disputes that the quantity textbox receives the input, and a popup box displays the output. (Tr. 355:9-14, 356:20-357:5). Mr. Schmandt testified that the quantity textbox and the popup box are different UI objects. (Tr. 781:22-782:4). For YouTube, Dr. Almeroth testified the play button and bar below the video frame are UI objects receiving inputs, and the video is the output UI object. (Tr. 357:22-25, 375:18-376:7). Mr. Schmandt testified the play button, bar (or “slider”), and video are different UI objects. (Tr. 782:21-783:16).

Express Mobile contends that the display of the product page for the add-to-cart functionality and the display of the YouTube video for the YouTube functionality are each a

⁷ I was not asked to construe “defined UI object.” I was asked to construe “UI object,” but I did not construe that term when the parties did not rank it very highly in importance. In any event, the parties’ proposed competing constructions of “UI object” are irrelevant to the present dispute. (D.I. 117 at 87). I construed “preferred UI object” (D.I. 414 at 2), but that construction too is irrelevant to the present dispute.

defined UI object. (D.I. 446 at 10, 11 n. 10; Hearing Tr. 37:14-15, 38:12-15). In support, Express Mobile points to both Dr. Almeroth's testimony and Mr. Schmandt's testimony. Neither expert testified that the display of product pages with add-to-cart functionality and YouTube videos were defined UI objects themselves, but rather that the product pages contain UI objects such as the play button. (Tr. 329:17-330:7, 330:14-331:18, 355:9-357:5, 367:23-368:7, 780:24-781:21, 782:21-783:4).

Express Mobile argues that the claims and specification disclose that a defined UI object can have inputs and outputs. (D.I. 443 at 11-12, citing JTX-0001 at 37:34-35, *id.* at 14:22-23). Express Mobile cites Mr. Schmandt's testimony regarding a hypothetical example of a defined UI object that takes an input and displays an output. (D.I. 443 at 10, citing Tr. 776:15-778:3).

I think the parties' arguments raise two issues. One, can the defined UI object be the entirety of whatever is displayed to the user? That appears to be an issue of claim construction. Two, in this case, did Plaintiff present any evidence that the defined UI object was the product page? That appears to be an issue of the sufficiency of the evidence.

As previously noted, no one sought claim construction for "defined UI object." The need for claim construction was not raised during trial. Thus, to the extent it is an issue, it is first raised by the post-trial briefing. I think that is too late. Thus, I find any argument based on claim construction to have been forfeited.

There was no testimony at trial that the product pages were "defined UI objects" or even that they were "UI objects." There was no argument to the jury that the product pages were "defined UI objects" or that they were UI objects. What the jury did hear from Dr. Almeroth and Mr. Schmandt was that the product pages for add-to-cart and YouTube have UI objects in them. (Tr. 329:17-330:7, 330:14-331:18, 355:9-357:5, 367:23-368:7, 780:24-781:21, 782:21-783:4).

Without testimony identifying the product pages as “defined UI objects,” the jury had no basis to find that there were any defined UI objects that both received input values and produced output values. Mr. Schmandt’s hypothetical example involving Mt. Rainier did not provide circumstantial evidence from which the jury could have concluded that in Shopify’s system the whole display is a defined UI object.

I grant JMOL in regard to UI Objects since Express Mobile did not show that Shopify’s system has a defined UI object that both receives input values and displays output values.⁸

2. A Device-Specific Player and a Separate Device-Independent Application

a. Definitions of Player and Application

All asserted claims require there to be a “Player.” I previously construed Player as “device-specific code which contains instructions for a device and which is separate from the Application.” (D.I. 142 at 2). I previously construed “device-specific code” as “code that is specific to the operating system, programming language, or platform of a device.”⁹ *Id.* All asserted claims also require an “Application,” which I previously construed as “device-independent code which contains instructions for a device and which is separate from the Player.” (D.I. 142 at 2).

⁸ I could, and perhaps should, stop here. Much of the trial testimony on infringement can only be understood, if at all, with great effort. The claims are very long and complicated. For example, claim 1 of the ‘287 patent is 424 words long. At trial, Express Mobile divided the claims into four parts, which it color-coded as red, green, gold, and blue. (Tr. 296-297). The testimony of Plaintiff’s technical expert about how Shopify’s system worked was intermingled with references to its meeting, e.g., the “red group of limitations.” (See Tr. 329 (red), 335 (green), 354 (gold), 358 (blue)). The testimony at times lacked the usual one-to-one correspondence with the specific limitations in the claims, and that combined with the color-coding means that trying to figure out whether there was sufficient evidence to show infringement is difficult.

⁹ I actually construed “device-dependent code,” but everyone agreed that “device-specific code” and “device-dependent code” mean the same thing. I encouraged the parties to use “device-specific” rather than “device-dependent” since “device-dependent” and “device-independent” sound enough alike that they might be easily misheard or confused. (D.I. 137 at 14).

There is dispute over what the Player and Application are. Shopify argues there is no proof of a Player, nor is there proof of a separate Application. (D.I. 437 at 2-3). Express Mobile argues its expert, Dr. Almeroth, identified the Player and a separate Application. (D.I. 443 at 3-5). Only after a detailed look at the record and the parties' briefing could I begin to piece together what the Player and Application might be. Neither in the trial, nor in the briefing, did Express Mobile clearly identify what the Player and Application are. Instead, Express Mobile identified different items as parts of the Player and Application one by one throughout the briefing as explanation for why individual claim limitations were met. At oral argument on the JMOL motion, Express Mobile stated that the Player was the device-specific codes in certain files, not the file in which device-specific code appears. (Hearing Tr. 4:22-5:7). Similarly, the Application is specific lines of code occurring in other files. (*Id.* at 11:11-16).

Viewed in light of Express Mobile's theory as explained at oral argument, Dr. Almeroth identified the Player as JavaScript code within particular JavaScript files, including `vendor.js` and `theme.js`, which provide add-to-cart functionality, and `embed-player.js`, which provides YouTube functionality. (Tr. 342:8-21, 344:4-1, 346:13-24). Dr. Almeroth identified the Application as HTML code from the files `colored-rubber-bands.html`, for add-to-cart functionality, and `index.html`, for YouTube functionality. (Tr. 337:24-338:7, 340:14-24).

However, the evidence the jury heard on the identification of the Player and Application was unclear and confusing. (Tr. 342:16-19, 346:13-347:15, 417:4-20, 439:12-440:9). It would be a miscarriage of justice to allow the verdict of infringement to stand when the testimony about what was the Player and what was the Application was so unclear.¹⁰ At times, Express Mobile's

¹⁰ The trial may not have been particularly long, but the subject matter is not within the ordinary knowledge of most jurors. Thus, I have given careful scrutiny to the verdict. *See Lind*, 278 F.2d at 90-91.

evidence on what the Player and Application was even conflicting. I therefore grant a new trial. *See Union Carbide Chemicals & Plastics Tech. Corp. v. Shell Oil Co.*, 308 F.3d 1167, 1186 (Fed. Cir. 2002) (granting a new trial on enablement when expert testimony was “general and vague”). I will illustrate the type of unclear testimony with a few examples.

It would be nearly impossible for the jury to figure out whether the Player and Application were supposed to be lines of code from certain files, or the files themselves. Dr. Almeroth referred to the Player as code, but then mentioned he went through the whole file to determine the code was device-dependent. The implication seems to be that the Player is a file, contradicting Express Mobile’s assertion that the Player is certain lines of code:

Q. So, we’ve talked about the player code for add-to-cart. Did you identify an example of the player code for the YouTube functionality?

A. I did. So, there was similar kinds of code, and what I identified for the player for YouTube, there again, it’s looking at different kinds of browsers to be able to support the different features of the video. So, there’s also similar kinds of device-dependent code for the video service...

Q. And how did that file inform your analysis on device-dependent code?

A. I was able to look through all of the lines of that file and find similar kinds of examples of where there was some code that was executed for certain device platforms, and other code that was executed for other device platforms. There, again, meeting the Court’s construction of device-dependent code.

(Tr. 346:13-347:15).

Sometimes Dr. Almeroth discusses Player files:

Q. And what code handles the playback output?

A. That’s the player file that I mentioned earlier. So, WWW-embed-player.js.

(Tr. 358:13-15).

Dr. Almeroth at one point noted different files as the Player, but then said the Player included “other things.”

Q. Okay. But I want, sir, an answer to my question. I want to be clear. You've talked about vendor and theme, two files; right?

A. Yes.

Q. And then you said there's other files that relate to them?

A. Yes.

Q. Is it your opinion that the player is vendor and theme, or is it your opinion that the player is vendor, theme, and other stuff?

A. It's vendor, theme, and other things that are called as part of executing vendor and theme. So those files are interrelated in terms of the functions that they execute to support the player. And I think I've identified those in the report, but I didn't walk through every single file for my testimony today.

(Tr. 417:4-20).

Dr. Almeroth's testimony on the Application is also unclear. (Tr. 439:12-19). Dr.

Almeroth sometimes testified that the Application was different files:

Q. Okay. Now, let's move onto the application. What you have identified as the application is two files, colored rubber bands and -- well, it's actually two files that relate to colored rubber bands; is that right?

A. No. I believe it's the colored-rubber-bands.html. That's the one I talked about today.

Q. And index.HTML; is that right?

A. The index.HTML was with respect to the video.

(Tr. 439:11-19).

Q. What are vendor.js and theme.js?

A. Those are two JavaScript files, so now we're talking about a different language. And those two files, they're separate from the application files I talked about. And these files provide support for including add-to-cart functionality on a web page.

(Tr. 342:16-21).

Q. And can you explain to us why you believe that the application and player that you identified in Shopify's system are separate from one another?

A. Sure. The simple first answer is in this system, they're separate files. They have separate file names, and so, they're separate.

(Tr. 351:4-9).

Sometimes, Dr. Almeroth referred to the Application as certain code within files:

Q. Okay. And so we've been kind of talking about add-to-cart and YouTube in different chunks. Focusing on add-to-cart, what application code did you identify for your analysis?

A. For that, it's on Demonstrative 47. And this is code from the HTML file, hypertext markup language. That's one of the types of computer languages in some of the files that are received by the browser. And it's the colored-rubber-bands-html.

(Tr. 337:24-338:7).

Q. So, turning to the YouTube web service, what evidence of an application did you identify with respect to YouTube?

A. Yes. Number 48, Mr. McDonald. So, here I'm relying on the same kinds of code that would be delivered to the application. This would be in a separate file than the other application.

(Tr. 339:10-15).

Q. Can you turn to PTX 957 in your binder?

A. Okay.

Q. What is this exhibit?

A. This is the source code for the index.HTML for the Nigelsshop, the main page. So it's more HTML code, and this is some of the code that I relied on for the video service in showing that there is application code.

(Tr. 340:17-23).

This type of unclear, contradictory testimony makes it impossible to have any confidence in the verdict. For that reason, I grant a new trial in the alternative.

b. Player and Application Claim Limitations

I consider whether I should grant JMOL on the basis of the Player and Application arguments. I accept that at one time or another Dr. Almeroth sufficiently identified certain code as being the Player and the Application. I would thus conclude that the Player and Application would meet the claim limitations that the Player is device-dependent, the Application is device-independent, the Player is specific to a device, the Player and Application are separate, and the Player provides instructions for a display of the device to present an output value.

Shopify argues that the files containing the code Dr. Almeroth identified as the Player have some device-independent code in them, so they cannot be the Player. (D.I. 437 at 7). In support, Shopify cites Dr. Almeroth's testimony that not all the code in what he identifies as the Player is device-specific, and that some of it is device-independent. (Tr. 391:22-392:5, 418:11-419:7). I do not think the fact that a file contains both device-specific and device-independent code is dispositive. As I previously stated at summary judgment, it is a question of fact as to "whether code that contains both device-independent code and device-dependent code is overall considered to be device-dependent conditional [logic]" code. (D.I. 297 at 35). Contrary to Shopify's assertion that the Court's construction of Player means the Player cannot be a file with "some device-independent code" (D.I. 437 at 7), the question here is whether there was sufficient evidence for a reasonable jury to find the code cited as the Player was overall device-specific code. I think there was. Dr. Almeroth testified that what he identified as the Player is device-specific, and that it will run one set of code if the browser is capable of running it, and a different set of code if the browser is not. (Tr. 343:23-344:20). Dr. Almeroth gave the jury examples of the device-specific Player code for the add-to-cart and YouTube functionality. (Tr. 346:13-348:13).

Shopify argues that if conditional logic is device-specific code, then the Application is not device-independent code. (D.I. 437 at 9). This is because the files Dr. Almeroth identified as containing the Application, colored-rubber-bands.html and index.html, contain conditional logic. (Tr. 439:12-19, 742:20-743:9). Shopify argues the presence of conditional logic and therefore device-specific code in the Application files means the Application cannot be device-independent. (D.I. 437 at 9).

However, the jury had sufficient evidence to find the Application was device-independent. The conditional code Shopify refers to is in JavaScript. (Tr. 736:12-20, 737:15-19, 743:10-12). The jury had enough evidence to find that the conditional code was not part of the Application. Dr. Almeroth identified that the Application was the HTML code in colored-rubber-bands.html and index.html. (Tr. 337:24-338:7, 340:14-24). Dr. Almeroth also testified that the HTML code was not specific to an operating system, programming language, or platform of a device. (Tr. 341:11-342:5).

Shopify argues there were no devices to which the Player files were specific. (D.I. 437 at 7). The construction of Player requires the Player to be device-specific, that is, “specific to the operating system, programming language, or platform of a device.” (D.I. 142 at 2). Shopify notes Dr. Almeroth’s testimony that Player files are understood by any device that visits a Shopify merchant store, and argues the Player files therefore cannot be device-specific. (D.I. 437 at 7, Tr. 702:23-705:1). Shopify also notes that Dr. Almeroth testified that some code in the Player is device-specific because different code is executed depending on the browser. (Tr. 342:2-345:6). Shopify argues that this testimony fails because device-specific code means code running on one platform would not run on a different one. (D.I. 437 at 8, Tr. 171:9-172:10).

There was sufficient evidence for a reasonable jury to find that the Player was device-specific because it was specific to the platform of the device. Dr. Almeroth testified that a browser is a platform. (Tr. 343:23-344:1, 348:1-2). There was testimony that code in js files has conditional logic where different portions of the code will run depending on the browser. (Tr. 347:16-349:13, 729:21-730:15). A reasonable jury could have found that code that branches depending on the type of platform is device-specific, since the relevant branch of code is specific to the device.

Shopify argues that the Player and Application are not separate. (D.I. 437 at 8). I think a reasonable jury had enough evidence to find they are separate. First, the jury could have found the Player being written in JavaScript and the Application being written in HTML was enough to make them separate. Second, the Player and Application are in different files. The Player is in vendor.js, theme.js, and embed-player.js (Tr. 342:8-21) and the Application is in colored-rubber-bands.html and index.html. (Tr. 337:24-338:7, 340:14-24). Shopify argues that the Player and Application are not separate because the files are sent at almost the exact same time (D.I. 437 at 10-11), but that does not make them not separate. The jury had enough evidence to find the Player and Application are separate due to being written in different programming languages and being in different files.

To find infringement, the jury would also need evidence to determine the Player performed the functional requirement, which is providing “instructions for a display of the device to present an output value.” (’287 patent claim 1). Express Mobile argues the Player meets the functional requirement. Express Mobile argues that Dr. Almeroth identified and put up specific JavaScript code excerpts that implement the display functionality. (Hearing Tr. 33:11-17). Dr. Almeroth testified that Shopify’s system meets this limitation (Tr. 356:20-357:5) and

used the add-to-cart functionality as an example. (Tr. 354:24-355:14). Dr. Almeroth also testified that the Player uses theme.js and vendor.js to perform the function (Tr. 355:15-357:12), that theme.js is “one of the player files” (Tr. 355:18-19), and that there is a part of vendor.js that is the Player (Tr. 356:3-4).

Shopify contends the identified Player does not meet this limitation. Shopify argues that though Dr. Almeroth pointed to lines of code in theme.js as performing the Player function, there is no evidence those lines of code are device-specific. (D.I. 446 at 5-6, Hearing Tr. 9:1-20). Because the Player must be device-specific and there is no evidence the identified lines of code are, Shopify concludes that there is no evidence the Player meets the function limitation. (*Id.*).

Express Mobile replies that the Player can still be device-specific if the lines of code Dr. Almeroth identified as meeting the function requirement are device-independent. (Hearing Tr. 34:2-13). Express Mobile argues it was a question of fact whether code that is device-independent and device-specific is overall device-specific. (*Id.*). I have found there was enough evidence for the jury to determine that such code is overall device-specific. Thus, if Player is understood as JavaScript code within particular JavaScript files, including vendor.js and theme.js, which provide add-to-cart functionality, and embed-player.js, which provides YouTube functionality, then the Player meets the claims’ functional requirement.

I deny JMOL on the Player/Application arguments.

3. Memory

Each asserted claim requires “computer memory storing a registry of...an address of the web service” or “computer memory storing ... an address of the web service.” (JTX-0001 claim 1, 12, 22; JTX-0002 claims 1, 13; JTX-0003 claims 1, 17, 19).

Dr. Almeroth identified a file for the YouTube functionality containing the address of a web service. (D.I. 437 at 18 n. 12). However, Shopify contends a jury could not rely on the YouTube functionality to find that an address of the web service was stored. (*Id.* at 18). Shopify argues this is because the file Dr. Almeroth identified, `www-embed-player.js`, was not entered into evidence. (D.I. 437 at 6 n. 5).¹¹

Express Mobile replies that the file Dr. Almeroth identified as having the web address for the YouTube functionality was actually `external_video_URL_drop.rb`. (D.I. 443 at 19 n. 16, Tr. 325:9-326:13). Express Mobile contends this file was in evidence as PTX-069, and that Dr. Almeroth identified that the address of the web service was on Line 17 of the file. (D.I. 443 at 19 n. 16). A reasonable jury could have considered Dr. Almeroth's testimony that a web address was present in PTX-069 to find the YouTube functionality infringed the asserted claims.

Shopify argues that add-to-cart does not infringe the asserted claims because there was no evidence showing that a web service address is stored. (D.I. 437 at 18). Shopify contends that Dr. Almeroth only stated that information is stored at line 136 of the `product-template.liquid` file that gets "formed into" a web service address. (*Id.*, Tr. 319:13-320:8). The specific testimony is: "With respect to the web address, also, this line that I've highlighted here at the top around line 136 includes the information that gets formed into an address that can be used to access the web service on the Internet." (Tr. 319:13-320:8). Shopify asserts storing information that gets converted to a web address is not enough to constitute literal infringement,¹² since every

¹¹ Entering code into evidence is one of the more pointless exercises that can occur in a patent trial. The jury doesn't read code; neither do I. When, as occurred here, an expert says the code does such-and-such, and no cross-examination or opposing testimony relates to the assertion (D.I. 458 at 5), I think the opposing party has conceded the point. This makes particular sense in relation to testimony that has to have been disclosed in advance of trial.

¹² There was no assertion of the doctrine of equivalents in relation to infringement of any of the limitations of the eight asserted claims.

limitation in the claim must be found exactly as recited in the accused invention. *Microsoft Corp. v. GeoTag, Inc.*, 817 F.3d 1305, 1313 (Fed. Cir. 2016).

Express Mobile contends the above testimony is sufficient for a jury to find add-to-cart infringes, and requiring more would be construing “address of the web service” post-trial. (D.I. 443 at 19-20). A reasonable jury could have determined the code for Shopify’s add-to-cart function includes the address of the web service and infringes the asserted claims. No one asked me to construe “storing... an address of the web service,” and I did not. Whether storing information that “gets formed into the address that can be used to access the web service” is storing “an address of the web service” was a question of fact for the jury. (JTX-0001 at claim 1, 37:5-14, Tr. 319:13-320:8). Dr. Almeroth’s evidence is sufficient for a reasonable jury to conclude it is.

I deny JMOL based on Shopify’s memory argument.

4. Symbolic Names and Associated Data Format Class Types

The ‘287 and ‘044 patents require “symbolic names required for evoking one or more web components... where each symbolic name has an associated data format class type.” (JTX-0002 at claim 1, 37:57-61, claim 17 and 19 (via claim 15, 39:20-28); JTX-0003 at claim 1, 37:57-61), claim 13 (via claim 1)). I construed data format class type as “classification that defines the set of UI objects compatible with the symbolic name’s data type.” (D.I. 414 at 2).

Shopify argues that a jury could not have found it infringed the asserted claims, because while Dr. Almeroth was able to identify at least six symbolic names, Express Mobile did not put on evidence that each of the six symbolic names has an associated data format class type. (D.I. 437 at 19). Dr. Almeroth listed at least six different symbolic names: “data product form”, “product”, “quantity”, “video symbolic name”, “other indented portions at line 152” of PTX-

0958, and “examples for the symbolic names, at Lines 9 through 13” of PTX-0694. (Tr. 318:25-320:21; 325:9-20; 327:20-328:2). Shopify also argues that the evidence Express Mobile presented related to data types, and not to data format class types, which are distinct. (D.I. 446 at 10-11).

Express Mobile argues it did present evidence that Shopify’s system had symbolic names with data format class types. (D.I. 443 at 20). First, Dr. Almeroth made a conclusory statement that Shopify’s system meets the claim limitation that symbolic names have an associated data format class type.

A: And then the data format class type is "a classification that defines the set of UI objects compatible with the symbolic names data type."

Q. Thank you.

And does Shopify's system include all of the limitations of the three differences that you identified?

A. Yes.

(Tr. 366:21-367:3).

Express Mobile argues Dr. Almeroth stated two examples of a symbolic name with an associated data format class type. (D.I. 443 at 20). Dr. Almeroth testified that the file product-template-liquid, which relates to the add-to-cart functionality, contains symbolic names, with different input types. (Tr. 367:6-21). Dr. Almeroth testified that integer or pull-down menu are different object types associated with a symbolic name on that file. (*Id.*). For YouTube, Dr. Almeroth testified that there are two input types of button and scrubber bar. (Tr. 367:22-368:13). Dr. Almeroth also stated that a different input type would have a different type of preferred input associated with it. (*Id.*).

Weighing all evidence in light most favorable to Express Mobile, I think a jury did have sufficient evidence to find Shopify's system had symbolic names with associated data format class types. A reasonable jury could have found the testimony by Dr. Almeroth associated symbolic names with a data format class type.

For the file product-template.liquid, Dr. Almeroth stated there are symbolic names, different input types, and integer and pull-down menu which are associated object types. A jury could have found that integer and pull-down menu are "the set of UI objects compatible with the symbolic name's data type." (D.I. 414 at 2).

For YouTube, a reasonable jury could have found that the button and scrubber bar are the "set of UI objects compatible with the symbolic name's data type." *Id.* In other words, a reasonable jury could have found that Dr. Almeroth testified about data format class types, not just data types. (D.I. 446 at 10-11).

Dr. Almeroth did not go through each symbolic name he listed, but he did tell the jury Shopify's system meets the claim limitation of symbolic names having an associated data format class type. (Tr. 366:21-367:3). I think this conclusory statement, which Dr. Almeroth supported with two examples, is sufficient evidence for a reasonable jury to find each symbolic name has an associated data format class type.

I deny JMOL based on the symbolic names argument.

5. Direct Infringement

The case went to the jury only on theories of direct infringement and joint infringement. (D.I. 417 at 6-9). Shopify argues Express Mobile never proved that Shopify's system was set up to directly infringe, and that Express Mobile never proved there was evidence of actual infringement of the method claims.

a. System Claims

The system claims ('755 claim 1, '287 claims 1 and 13, '044 claim 1) require an “authoring tool configured to”¹³ perform various functions, including to “define a user interface (UI object) for display on the user’s device” (D.I. 437 at 15, quoting JTX-0001 at claim 1, 37:15-38, and citing JTX-0002 at claim 1, 37:63-38:28, JTX-0003 at claim 1, 37:63-38:33). The claims also require that the UI object must be able to take user input. (D.I. 437 at 15, JTX-0001 at claim 1, 37:30-37, JTX-0002 at claim 1, 38:19-38:25, JTX-0003 at 38:26-36).

Shopify argues that the authoring tool is Shopify’s Theme Editor. (D.I. 437 at 15).¹⁴ Express Mobile argues that two of Shopify’s system’s functions infringe the claims: add-to-cart and YouTube. Shopify contends the UI objects are the quantity textbox for the add-to-cart function and the scrubber bar and play button associated with the embedded YouTube video for the YouTube function. (*Id.* at 15-16).

Shopify argues that because both the quantity textbox and the embedded YouTube video are optional features that are by default off, Shopify’s system does not meet the configured to claim limitation. (D.I. 437 at 15-16). Therefore, Shopify argues, it does not infringe the system claims. (D.I. 437 at 17). Shopify contends a merchant must go into the Theme Editor to toggle the textbox on. (Tr. 782:5-14). Shopify argues that the embedded YouTube video is also not present by default, and a merchant must choose to add videos. (Tr. 306:13-307:19, 783:17-24).

Shopify argues that Express Mobile did not present evidence of infringement because Express Mobile did not show that anyone configured the quantity textbox or the embedded YouTube video to be on. (D.I. 437 at 16). Shopify designates some of Dr. Almeroth’s testimony

¹³ The construction for “authoring tool” was “a system, with a graphical interface, for generating code to display content on a device screen.” (D.I. 414 at 1).

¹⁴ Express Mobile does not dispute this statement. (D.I. 443 at 13-18).

as “Nigelsstore pretend shop” (*id.* at 16-17), but Express Mobile does not assert that it can prove infringement by reference to the Nigelsstore testimony. (D.I. 443 at 14-17). Shopify argues there is no evidence other than the insufficient Nigelsstore testimony that Shopify configured its authoring tool in such a way as to infringe the system claims. (D.I. 437 at 16).

Express Mobile does not dispute that the quantity textbox and the embedded YouTube video are off by default. (D.I. 443 at 14-17). Express Mobile argues that whether the quantity textbox is on or off is irrelevant because the add-to-cart functionality always has an “add-to-cart input button” and “a responsive add-to-cart popup that increment[s] the number of items in the cart when the [add-to-cart input] button [is] pressed.” (D.I. 443 at 14, Tr. 681:2-6, 781:13-782:4). The UI object on display would be the add-to-cart input button and it would take user input of clicking the button. In response, the quantity would be incremented by “1.” (D.I. 443 at 15, Hearing Tr. 82:16-19). Express Mobile contends that if the quantity textbox was enabled, then the only difference would be that the quantity would be incremented by the value the user specified. (*Id.*). Express Mobile argues that enabling the quantity textbox is not required to infringe. (*Id.*).

I consider Express Mobile’s argument that even though the quantity textbook and embedded YouTube video are off by default, they still meet the “configured to” claim limitation. Express Mobile argues that the YouTube functionality infringes because it has been present in Shopify’s system since 2013. (D.I. 443 at 15, Tr. 682:9-25). Express Mobile does not cite evidence that any online store ever changed the default setting so that the customer could embed YouTube videos in its online store. However, a reasonable jury could find the Theme Editor with its YouTube functionality was “configured to... define a user interface (UI object) for display on the user’s device.” (JTX-0001 at claim 1, 37:15-38). The jury had evidence that Shopify’s

system has supported the ability to embed YouTube videos since 2013, with no plans to discontinue the feature. (Tr. 682:9-25). A reasonable jury could find Shopify's Theme Editor is set up such that "by selecting menus and entering the settings" the user can "insert" a YouTube video for display without much effort. (Tr. 306:13-25, 307:5-15). The jury heard testimony that Shopify "provid[ed] to the merchants the ability to easily insert" YouTube videos "into the merchant's web page services." (Tr. 306:13-307:19).

In a similar vein, the jury could find that the Theme Editor with its add-to-cart functionality was "configured to... define a user interface (UI object) for display on the user's device." (JTX-0001 at claim 1, 37:15-38). Express Mobile argues that Shopify's code does not need to be modified by the user to function as recited by the claims. (D.I. 443 at 17). The jury had evidence that the only action the user needs to take to activate the quantity textbox is to check the show quantity selector checkbox. (Tr. 782:5-14).

I have seen analogous arguments before. *See M2M Sols. LLC v. Sierra Wireless Am., Inc.*, 2020 WL 7767639, at *12 (D. Del. Dec. 4, 2020). There, the claim limitation was that the products had to be "configured to use a memory," and it was undisputed the products could not meet the limitation without the use of a SIM card. *Id.* It was also undisputed the products were sold without a SIM card. *Id.* The plaintiff argued that inserting the SIM card activated the existing functionality of the device, like pressing an "ON" button. *Id.* at 13. The Magistrate Judge recommended denial of summary judgment for non-infringement based on this argument (which I later summarily adopted). *Id.* Here, because the user simply needs to check a box to turn on the quantity selector or embed the YouTube video, it would be essentially equivalent to flipping a switch in the Theme Editor to embed a YouTube video in the online store. That is

sufficient evidence for a reasonable jury to find the Theme Editor was “configured to... define” a YouTube video “for display on the user’s device.”

Shopify cites various cases in support of its contention that “configured to claim language is not directly infringed by mere capability.” (D.I. 437 at 15, citing *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1349 (Fed. Cir. 2012); *Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc.*, 555 F.3d 984, 995 (Fed. Cir. 2009); *Sprint Commc'ns Co. v. Comcast IP Holdings, LLC*, 2015 WL 4720576, at *8 (D. Del. Aug. 7, 2015)). I do not think *Aspex Eyewear* stands for that proposition. Rather, *Aspex Eyewear* discusses how the term “adapted to” can mean “capable of” or “configured to.” *Aspex Eyewear*, 672 F.3d at 1349. The technologies at issue in *Ball Aerosol* and *Sprint* were a candle and candle holder, and data transmission for fiber optic cables, respectively. *Ball Aerosol*, 555 F.3d at 995, *Sprint*, 2015 WL 4720576, at *1. These are quite different technologies from software. “[A]s in every infringement analysis, the language of the claims, as well as the nature of the accused product, dictates whether an infringement has occurred.” *Fantasy Sports Properties, Inc. v. Sportsline.com, Inc.*, 287 F.3d 1108, 1118 (Fed. Cir. 2002). A jury could reasonably find that a system designed so that a user could toggle UI objects on and off is enough for the system to be configured to “define a user interface (UI object) for display on the user’s device.” (D.I. 437 at 15, quoting JTX-0001 at claim 1, 37:15-38, and citing JTX-0002 at claim 1, 37:63-38:28, JTX-0003 at claim 1, 37:63-38:33).

I deny JMOL based on lack of direct infringement by the system claims.

b. Method Claims

Shopify argues Express Mobile has not proved direct infringement because they did not present any evidence that any merchant enabled the quantity selector or embedded a YouTube

video. (D.I. 446 at 10). Express Mobile argues it did prove direct infringement because Dr. Almeroth testified that Shopify's servers perform all method steps (as opposed to someone else performing any of them). (Tr. 360:24-361:9). But he did not testify that any merchant ever created a "quantity text field" or put a YouTube video on its online store, which would lead to Shopify's servers actually performing all steps of the method claim.

Express Mobile does need to show that Shopify actually performed all steps of the method. *Mirror Worlds, LLC v. Apple Inc.*, 692 F.3d 1351 (Fed. Cir. 2012), and *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009), are instructive. In *Mirror Worlds*, Mirror Worlds sued Apple alleging that all Apple computers and servers that run certain versions of Apple's MAC OS X operating system infringed its method patent. *Mirror Worlds*, 692 F.3d at 1355. The Federal Circuit held that there was no direct infringement because there was no evidence that Apple used the infringing method. *Id.* at 1358-59. The Federal Circuit then turned to the issue of induced infringement and held there was no indirect infringement by Apple because there was no evidence customers performed each step of the method. *Id.* at 1360.

In *Lucent Techs.* the Federal Circuit found there was direct infringement. *Lucent Techs.*, 580 F.3d at 1318. Plaintiff alleged that certain features of Microsoft products practice the method claims but Defendant argued Plaintiff did not introduce any evidence that any customer actually used the claimed method. *Id.* at 1317-18. Plaintiff's expert witness testified that as customers prior to the litigation, he and his wife performed all steps of the method. *Id.* at 1318. The Federal Circuit found that Plaintiff proved direct infringement:

[C]ircumstantial evidence was just adequate to permit a jury to find that at least one other person within the United States during the relevant time period, other than the expert, had performed the claimed method. Lucent's expert testified, "It's hard to imagine that we're the only two people in the world that ever used it." As Lucent notes, "Microsoft not only designed the accused products to practice the claimed

invention, but also instructed its customers to use the accused products in an infringing way.”

Id. (cleaned up).

Here, Express Mobile needed to present evidence that Shopify’s servers actually did perform the steps of the method claim. Dr. Almeroth did not present evidence that Shopify actually performed all of the steps of the method claim, either internally or pursuant to a request from a merchant. The evidence Express Mobile offered was centered around showing that Shopify’s system could perform all of the required steps of the method claim, not that it did perform them.

I grant JMOL that the method claims were not infringed because there was insufficient evidence to prove direct infringement. I do not conditionally grant a new trial on this issue, as if it is later vacated or reversed, it would be because the Court of Appeals concludes there is sufficient evidence.

B. Damages

Shopify contends that there should be “no damages” because the jury award of \$40 million was not supported by substantial evidence. (D.I. 437 at 20-24).

There was substantial evidence for a reasonable jury to award \$40 million as a fully paid-up lump sum. Dr. Almeroth testified that the web component functionalities of Shopify’s system infringe the three accused patents. (Tr. 382:9-12). In his analysis of “technical importance,” Dr. Almeroth compared Shopify Lite, which does not infringe, and Shopify Basic, which does infringe. (Tr. 378:23-379:10). For the features that Shopify Basic has that Shopify Lite does not have, Dr. Almeroth assigned a percentage to reflect the importance of the additional feature or

functionality.¹⁵ (Tr. 379:11-18). The percentage represented how innovative that feature or function was compared to other features or functions. (*Id.*). The web component functionalities made up 15% of the technological innovation from Shopify Lite to Shopify Basic. (Tr. 381:20-22). The web component functionality included add-to-cart. (Tr. 382:7-12). Dr. Almeroth testified that there are no commercially acceptable non-infringing alternatives for Shopify's system. (Tr. 382:17-383:13). Mr. Bratic, Express Mobile's damages expert, used Dr. Almeroth's 15% technological innovation figure to calculate a paid-up lump sum royalty of \$123 million. (Tr. 615:1-618:22).

Shopify presents four different reasons why Express Mobile failed to apportion damages. Shopify therefore argues that Express Mobile offered no valid proof of any damages. I address each argument in turn.

1. Apportionment related to add-to-cart

Shopify argues that Express Mobile's damages theory did not identify the incremental benefit of the patented invention over the prior art. (D.I. 437 at 20-22). Shopify raised this argument in a pretrial *Daubert* motion. I rejected that argument then. (D.I. 297 at 45). I now consider it in the context of the actual trial evidence. In particular, Shopify argues that the damages award does not account for the fact that add-to-cart knowledge was in the prior art and is a feature that (non-infringing) Shopify Lite provided.

"[T]he ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product." *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014).

¹⁵ Dr. Almeroth talked about "importance" and "technical innovation" for these additional features. Some features, for example, customer tracking, were important, but not technically innovative. (Tr. 381:11-16).

Shopify makes three arguments for why Express Mobile did not isolate the value of add-to-cart as made possible by the infringed patents and add-to-cart as disclosed in the prior art. None of them persuade me.

First, Shopify cites testimony from Dr. Almeroth to argue that the Arner prior art reference disclosed a different implementation of add-to-cart. (D.I. 437 at 20, Tr. 1008:1-1009:1). Shopify argues that Express Mobile improperly allocated the entire value of add-to-cart to its damage calculation, not just the difference in function from Arner to that made possible by the infringed patents. (D.I. 437 at 20). I do not think Dr. Almeroth's testimony on the Arner prior art reference is as clear as Shopify contends.

Q. Right. And so, can we at least agree that Express Mobile did not invent add-to-cart?

A. No. I don't think we can agree on that. The way that add-to-cart functions is what's the relevant distinction. So, when you say they invented add-to-cart functionality, they invented add-to-cart as it's implemented and described in the claim. That's the part that's valid.

(Tr. 1009:2-8).

A reasonable jury could have believed that what Dr. Almeroth called add-to-cart was the difference from prior art that was implemented in Shopify's system. This understanding would be consistent with Dr. Almeroth's testimony that he put a percentage value on the technical *innovation* from Shopify Lite to Shopify Basic. Shopify Lite also has an add-to-cart functionality, so the jury had enough evidence to find the 15% technical innovation would represent the specific implementation of add-to-cart that Shopify's patents claim. (Tr. 379:11-18, 381:20-22, 744:15-745:1).

Second, Shopify contends that Mr. Bratic should not have based his damages analysis on the \$20 price difference between Shopify Lite and Shopify Basic. Shopify argues this difference

does not reflect the value of the add-to-cart feature as that feature is present in both Shopify Lite and Shopify Basic. (D.I. 437 at 20-21, Tr. 598:23-604:17). The \$20 price difference was just the starting point of Mr. Bratic's analysis. (Tr. 599:3-8). Mr. Bratic explained in detail how he isolated the value attributable to the invention. (Tr. 598:23-604:17). For example, he apportioned using the 15% technical innovation value from Dr. Almeroth's analysis. (Tr. 599:12-22). The jury therefore had substantial evidence to find Mr. Bratic's analysis reflected the value of the add-to-cart feature as made possible by the infringed patents.

Third, Shopify contends that Mr. Bratic wrongly assumed there was no way for Shopify to provide add-to cart functionality without infringing. (D.I. 437 at 21). Shopify argues that Mr. Bratic relied on Dr. Almeroth's testimony that "there really weren't any ways for Shopify to implement the functionality of its system without using the patented technology from Express Mobile." (Tr. 383:3-13). Shopify argues that the testimony is insufficient to support Mr. Bratic's conclusions that there were no non-infringing alternatives. Shopify also argues Mr. Bratic did not consider testimony that it would only take a few hours of engineering to make each Shopify file "device specific," leading to a lack of a device-independent Application and no infringement. *Id.* The testimony Shopify refers to is Mr. Schmandt's testimony that adding in a few lines of device-specific code onto the Application files converts it into a Player, because the Application would no longer be device-independent. (D.I. 437 at 21, Tr. 787:7-21). Mr. Schmandt testified that Dr. Almeroth called these few lines of code in the vendor.js file a Player, and so copying and pasting them into the Application would turn it into a Player. (*Id.*).

I think a reasonable jury could prefer Dr. Almeroth's testimony over Mr. Schmandt's testimony that a few lines of code will convert an Application to a Player. Dr. Almeroth's analysis of the Player and Application was not as simple as being able to copy and paste lines of

code into the Application to make it a Player. As I have discussed above, a reasonable jury could have found the Player and Application were written in different languages. *See supra*, §III.A.2.

b. Copying and pasting lines of code from the Player to the Application would not convert the Application into a Player, because the Player code is only JavaScript. *Id.* Furthermore, a reasonable jury could have found that the Player and Application are lines of code, and not files. *Id.* Under this premise, copying and pasting lines of Player code into one file does not change the character of the lines of code that are the Application. I do not think a jury had to find that Mr. Bratic wrongly assumed there was no way for Shopify to provide add-to-cart functionality without infringing.

The jury had substantial evidence to find its award of \$40 million had properly isolated the incremental value of the add-to-cart functionality made possible by the infringed patents.

2. Apportionment by Infringing Configuration

Shopify's second argument for why Express Mobile did not apportion damages is that Shopify's system must be configured to infringe, and the damages were not apportioned by the infringing configuration. (D.I. 437 at 22). Shopify argues there was no evidence presented for how often the system was so configured. (D.I. 437 at 22). I have already ruled that Shopify's system in its default settings is "configured to" infringe the asserted claims. *See supra*, §III.A.5. The damages do not need to be apportioned by configuration.

3. Apportionment by Infringing Themes and Versions of Themes

Third, Shopify argues that Express Mobile did not apportion damages by the themes and versions of themes that infringe. (D.I. 437 at 22-23). Shopify's System has different themes and versions of themes that customers can use to set up their websites. (Tr. 720-21). Each individual theme results in a different looking website, so Shopify customers can use themes to customize

their website. (*Id.*). If a theme is updated by a Shopify developer, that leads to a different version of the theme. (Tr. 705:21-706:3). Shopify contends that not all themes and versions of themes have the infringing features such as the add-to-cart popup and quantity textbox. (D.I. 437 at 29). The jury heard enough evidence to determine that every theme had the add-to-cart button. (Tr. 723:23-25). Thus, I reject Shopify's argument that Express Mobile did not apportion damages to account for non-infringing themes and versions of themes.

4. Apportionment by Activities Inside versus Outside the United States

Fourth, Shopify argues Express Mobile did not apportion the royalty base by activities inside the United States versus outside the United States. (D.I. 437 at 23). The issue arises because the jury heard testimony that Shopify's servers and stores for Canadian cannabis stores are hosted outside of the United States. (Tr. 688:14-689:13). Based on the testimony, the Canadian cannabis exception appears to have been an inconsequential contributor to Shopify's revenue. I assume from the lack of citation by either side that Mr. Bratic did not back out revenue based on this Canadian server activity. Since only infringing activities inside the United States are actionable, Shopify argues that the royalty base included revenues from non-infringing conduct. (D.I. 437 at 23, *see NTP, Inc. v. Rsch. In Motion, Ltd.*, 418 F.3d 1282, 1313 (Fed. Cir. 2005) ("Section 271(a) is only actionable against patent infringement that occurs within the United States")). Shopify contends the total damage award was therefore too high. (D.I. 437 at 23).

By way of background, Shopify did not include in its *Daubert* motion on Mr. Bratic any apportionment challenge based on foreign activities. (D.I. 297 at 44-45; *see* D.I. 212 at 37-40).

Nor did Shopify raise such a challenge in its motions in limine. (D.I. 318, D.I. 320, D.I. 322).

The JMOL briefing does not cite any place where Shopify preserved the issue.¹⁶

Shopify did not present any related argument to the jury.

The jury could have reasonably concluded that the Canadian cannabis servers led to a *de minimis* contribution to Shopify's revenues. The jury heard evidence that the servers were only for restricted goods sold in Canada I conclude that if there was any error, and if a proper objection was preserved, the error was *de minimis* and had no impact on the amount of damages awarded.

Drawing all logical inferences in favor of Express Mobile as the non-moving party, I find that there was substantial evidence in the record supporting the jury's damage award of \$40 million. I deny the motion for JMOL of no damages.

C. New Trial

Shopify moves for a new trial under Rule 59.

It relies partly on the same reasons it raised in its JMOL motion. I granted JMOL for the defined UI object and the direct infringement of the method claims and have otherwise denied JMOL. I granted a new trial based on arguments related to the Player and the Application. For the same reasons that I am denying the rest of the JMOL motion, I deny the motion for a new trial to the extent it is based on the previously denied arguments in support of the JMOL motion.

Shopify makes two arguments that it raises only in connection with the new trial motion. They both relate to evidence of Express Mobile's actual licensing history. (D.I. 437 at 24-25).

¹⁶ There is discussion in connection with the jury instructions. (Tr. at 826:12-828:14). The final jury instructions (D.I. 417 at 10) noted the geographic limitation on patent infringement. The final jury instructions did not separately address damages in relation to this issue.

First, Shopify argues that there one lump sum license in the record that included the asserted patents, and it was for \$50,000. (D.I. 437 at 25, Tr. 633:1-16). It included not only the asserted patents, but the so-called “web design” patents. (*Id.*). Dr. Almeroth considered the web design patents to contribute more than three times the value to Shopify’s infringing stores as the asserted patents. Express Mobile purchased the web design patents in 2012 for \$400,001. (Tr. 201:16-202:13, DTX-331). Shopify contends the \$50,000 license is far too small to support a jury verdict of \$40 million. (D.I. 437 at 25). Thus, Shopify argues, it would be a “miscarriage of justice” to let the \$40 million verdict stand.¹⁷

It would not be a miscarriage of justice to disregard the \$50,000 license in calculating damages. The license was a settlement agreement between BigCommerce and Express Mobile. (Tr. 630:12-20). Federal Circuit precedent “has noted the ‘longstanding disapproval of relying on settlement agreements to establish reasonable royalty damages.’” *Sprint Commc’ns Co. LP v. Charter Commc’ns, Inc.*, 2021 WL 982732, at *10 (D. Del. Mar. 16, 2021) (quoting *Laser Dynamics, Inc. v. Quanta Comp., Inc.*, 694 F.3d 51, 77 (Fed. Cir. 2012)). This is because “[t]here is minimal probative value in using litigation settlement agreements to calculate a reasonable royalty, as the settlement agreement is not comparable to a negotiation between two willing parties.” *Sprint*, 2012 WL 982732, at *10; see *LaserDynamics*, 694 F.3d at 77 (“The notion that license fees that are tainted by the coercive environment of patent litigation are unsuitable to prove a reasonable royalty is a logical extension of *Georgia-Pacific*, the premise of which assumes a voluntary agreement will be reached between a willing licensor and a willing licensee....”).

¹⁷ Without a hint of irony, Shopify denigrates the damages verdict as “one-sided” and notes that it did not call its own damages expert. (D.I. 437 at 24-25 & n.20).

Second, Shopify contends that Express Mobile had a lump-sum licensing program that offered licenses for \$30,000, \$60,000, and \$90,000 at the time of the hypothetical negotiation. (D.I. 437 at 25, Tr. 624:9-625:18, DTX-258). Shopify notes that under this licensing program, Express Mobile gave 90% discounts to “early” licensees. (D.I. 437 at 25, Tr. 624:9-625:18, DTX-258). Therefore, Shopify argues, a jury verdict of \$40 million is unsupported. (D.I. 437 at 25). Express Mobile’s brief (D.I. 443) does not expressly respond to this particular argument.

The only evidence of this licensing program that Shopify points to is in an email from an Express Mobile lawyer to a representative of a company called Gorilla Group. DTX-258. The email does not explain what patents are part of the licensing program. *Id.* The email makes no assertion as to the scope of the Gorilla Group’s possible infringement and there is no evidence as to anything about the Gorilla Group. The email is part of a pre-litigation settlement offer which, as explained above, is usually less suitable as evidence to support a reasonable royalty award. The email states, “Express Mobile believes there to be liability, both direct and indirect, on the part of Gorilla Group....” *Id.* However, the email also mentions Express Mobile sent letters to various companies to join this lump-sum licensing campaign, presumably outside of a settlement offer context. *Id.* The Gorilla Group email is thus incomplete on its own to support granting a new trial for damages.

I have explained why Mr. Bratic’s testimony is sufficient to support the jury verdict. I now conclude that the “less rigorous” standard for granting a new trial is also not met. I deny the request for a new trial.

IV. CONCLUSION

An appropriate order will issue.